

AMENDMENTS TO THE SPECIFICATION

Please delete all versions of the Sequence Listing previously submitted in the present application and replace with the Sequence Listing submitted herewith in electronic format *via* EFS-Web.

In the specification at page 1, after the title, please insert the following new paragraphs:

RELATED APPLICATIONS

This application is a national stage application (under 35 U.S.C. § 371) of PCT/EP2003/007589, filed July 14, 2003, which claims benefit of German application 10233327.0, filed July 22, 2002.

SUBMISSION OF SEQUENCE LISTING

The Sequence Listing associated with this application is filed in electronic format *via* EFS-Web and hereby incorporated by reference into the specification in its entirety. The name of the text file containing the Sequence Listing is Revised_Sequence_Listing_12810_00067. The size of the text file is 205 KB, and the text file was created on December 15, 2009.

In the specification at page 2, line 43, please replace the heading inserted in the Preliminary Amendment dated January 24, 2005 with the following amended heading:

Brief Summary of the Invention

In the specification at page 3, line 3, please insert the following new headings and new paragraph:

Brief Description of the Drawings

Fig. 1: RNA interference with *pNAox*-dsRNA reduces the penetration efficiency of powdery mildew of barley BghA6 in barley.

Detailed Description of the Invention

In the specification at page 24, line 14, please replace the paragraph starting with "The polypeptide sequence" with the following amended paragraph:

The polypeptide sequence of the NADPH oxidase especially preferably comprises at least one sequence motif selected from the group of sequence motifs consisting of

- i) AL(K/R)GL(K/R) (SEQ ID NO: 25)
- ii) DK(N/D)XDG(R/K)(I/L/V)(T/N)E (SEQ ID NO: 26)
- iii) LSASAN (SEQ ID NO: 27)
- iv) IMEELDP (SEQ ID NO: 28)
- v) K(F/L)NMA(I/L)(I/V)LXPVCRN (SEQ ID NO: 29)
- vi) (E/Q)WHPFSIT (SEQ ID NO: 30)
- vii) S(A/S)PXDD(Q/Y)(L/I)S(I/V)H(V/I/L)R (SEQ ID NO: 31)
- viii) DGPYG(S/A)PAGDY (SEQ ID NO: 32)
- ix) L(I/V)GLGIGATP (SEQ ID NO: 33)
- x) FYWVTREQGSF (SEQ ID NO: 34)
- xi) GVFYCG (SEQ ID NO: 35)

In the specification at page 49, line 14, please replace the paragraph starting with "A source of further" with the following amended paragraph:

A source of further pathogen-inducible promoters is the PR gene family. A series of elements in these promoters has proved to be advantageous. Thus, the region -364 to -288 in the promoter of PR-2d mediates salicylate specificity (Buchel et al. (1996) Plant Mol Biol 30, 493-504). The sequence 5'-TCATCTTCTT-3' (SEQ ID NO: 36) occurs repeatedly in the promoter of the barley β -1, 3-glucanase and in more than 30 further stress-induced genes. In tobacco, this region binds a nuclear protein whose abundance is increased by salicylate. The PR-1 promoters from tobacco and Arabidopsis (EP-A 0 332 104, WO 98/03536) are likewise suitable as pathogen-inducible promoters. Preferred, since especially specifically pathogen-induced, are the acidic PR-5 (aPR5) promoters from barley (Schweizer et al. (1997) Plant Physiol 114:79-88) and wheat (Rebmann et al. (1991) Plant Mol Biol 16:329-331). aPR5 proteins accumulate in approximately 4 to 6 hours after pathogen attack and show only very little background expression (WO 99/66057). An approach for achieving an increased pathogen-induced specificity is the generation of synthetic promoters from combinations of known pathogen-responsive elements (Rushton et al. (2002) Plant Cell 14, 749-762; WO 00/01830; WO

99/66057). Further pathogen-inducible promoters from different species are known to the skilled worker (EP-A 1 165 794; EP-A 1 062 356; EP-A 1 041 148; EP-A 1 032 684).

In the specification at page 61, line 27, please replace the heading "Brief Description of the Drawings" inserted in the Preliminary Amendment dated January 24, 2005 with the following amended heading:

Figure

In the specification at page 62, line 14, please delete the heading "Detailed Description of Embodiments of the Invention" inserted in the Preliminary Amendment dated January 24, 2005.

In the specification at page 66, line 4, please replace the paragraph starting with "Barley cv Pallas leaf" with the following amended paragraph:

Barley cv Pallas leaf segments were transformed with a *pNAox* dsRNA together with a GFP expression vector. Thereafter the leaves were inoculated with Bgh and the result was analyzed after 48 h by means of light and fluorescence microscopy. The penetration into GFP-expressing cells was assessed by detecting haustoria in live cells and by assessing the fungal development in precisely those cells. In all five experiments, the bombardment of barley cv Pallas with *pNAox* dsRNA resulted in a reduced number of cells which were successfully penetrated by Bgh in comparison with cells which had been bombarded with foreign control dsRNA (human thyroid hormone receptor dsRNA, TR). The resistance-inducing effect of the *pNAox* dsRNA resulted in an average reduction of the Bgh penetration efficiency by 35% (Fig. [[4]] 1).

In the specification at page 68, line 34, please replace the paragraph starting with "The % RPE value" with the following amended paragraph:

The % RPE value (deviation of the average penetration efficiency of the control) is used to determine the susceptibility of cells transfected with *pNAox*-dsRNA (fig-4 Fig. 1).